

**IN THE CLAIMS:**

Please amend the claims as follows:

Claim 1 (Currently amended): A method of stopping an unmanned mine vehicle in a predetermined position, the mine vehicle (~~1, 1a, 1b~~) being controlled by means of a control system comprising at least a first control unit ~~[(3)]~~ in the mine vehicle, a second control unit ~~[(4)]~~ outside the mine vehicle and a data transmission connection ~~[(5)]~~ between said control units ~~[(3,4)]~~,

and the method comprising:

driving the mine vehicle (~~1, 1a, 1b~~), controlled by its control system, towards a predetermined position; ~~[[and]]~~

monitoring at least the speed of the mine vehicle and the speed of the driving power transmission ~~[(20)]~~ of the mine vehicle, ~~characterized by~~

driving the mine vehicle (~~1, 1a, 1b~~) at a speed significantly lower than the normal driving speed against at least one physical obstacle (~~7, 7a, 7b~~) that is arranged in a predetermined position;

and stopping the mine vehicle (~~1, 1a, 1b~~) when the ratio of the speed of the driving power transmission ~~[(20)]~~ to the speed of the mine vehicle exceeds a predetermined limit value.

Claim 2 (Currently amended): A method according to claim 1, ~~characterized by~~  
comprising

monitoring the speed of the traction wheels ~~[(10)]~~;

and stopping the mine vehicle (1, 1a, 1b) when the ratio of the speed of at least one traction wheel [(10)] to the speed of the mine vehicle (1, 1a, 1b) exceeds a predetermined limit value.

Claim 3 (Currently amended): A method according to claim 1, ~~characterized by~~  
comprising

monitoring the rotation speed of the motor [(30)] of the mine vehicle (1, 1a, 1b) when the vehicle is driven at a given gear of the driving power transmission [(20)] against the obstacle [(7)];

and stopping the mine vehicle (1, 1a, 1b) when the ratio of the rotation speed of the motor [(30)] to the speed of the mine vehicle exceeds a limit value defined according to the gear used.

Claim 4 (Currently amended): A method according to ~~any one of the preceding claims,~~  
~~characterized by~~ claim 1, comprising

driving the mine vehicle (1, 1a, 1b) at a decelerating speed against the obstacle (7, 7a, 7b).

Claim 5 (Currently amended): A method according to ~~any one of the preceding claims,~~  
~~characterized by~~ claim 1, comprising

driving at least one wheel [(10)] of the mine vehicle (1, 1a, 1b) against the obstacle (7, 7a, 7b).

Claim 6 (Currently amended): A method according to ~~any one of claim 1 to 4,~~  
~~characterized by~~ claim 1, comprising

driving the frame [(12)] of the mine vehicle (1, 1a, 1b) against the obstacle (7, 7a, 7b).

Claim 7 (Currently amended): A system for stopping an unmanned mine vehicle in a predetermined position, the system comprising at least:

a control unit including at least a first control unit [(3)] in the mine vehicle;  
a second control unit [(4)] outside the mine vehicle; [and]  
a data transmission connection [(5)] between said control units [(3,4)]; [and]  
means for monitoring the speed of the mine vehicle (1, 1a, 1b) and the speed of the driving power transmission [(20)] of the mine vehicle,  
~~characterized in that the system further comprises~~  
at least one physical obstacle (7, 7a, 7b) arranged in a predetermined position, against which the mine vehicle (1, 1a, 1b) is arranged to be driven;  
and means for stopping the mine vehicle (1, 1a, 1b) when the ratio of the speed of the driving power transmission [(20)] of the mine vehicle to the speed of the vehicle exceeds a predetermined limit value.

Claim 8 (Currently amended): A system according to claim 7, ~~characterized in that~~  
wherein

the system comprises members for monitoring the speed of the traction wheels [(10)] of the vehicle and for determining the speed of the driving power transmission [(20)].

Claim 9 (Currently amended): A system according to claim 7, ~~characterized in that~~  
wherein

the system comprises means for monitoring the rotation speed of the motor of the mine vehicle (1, 1a, 1b) ; and

and ~~[[that]]~~ the system is arranged to stop the mine vehicle ~~(1, 1a, 1b)~~ when the ratio of the rotation speed of the motor ~~[[30]]~~ to the speed of the mine vehicle exceeds a limit value defined according to the gear used.

Claim 10 (Currently amended): A system for stopping an unmanned mine vehicle in a predetermined position, the system comprising:

a control system including at least a control unit ~~[[3]]~~ in the mine vehicle ~~(1, 1a, 1b)~~;  
~~characterized in that the system further comprises:~~ at least one physical obstacle ~~(7, 7a, 7b)~~ arranged in a predetermined position, against which the mine vehicle ~~(1, 1a, 1b)~~ is arranged to be driven;

means for determining the tractive resistance of the mine vehicle ~~(1, 1a, 1b)~~ when said obstacle ~~(7, 7a, 7b)~~ is approached; ~~and further,~~

and means for stopping the mine vehicle ~~(1, 1a, 1b)~~ when the tractive resistance exceeds a predetermined limit value.

Claim 11 (Currently amended): A system according to claim 10, ~~characterized in that~~  
wherein

the system comprises means for determining the speed of the mine vehicle ~~(1, 1a, 1b)~~;  
~~[[that]]~~ the system comprises means for monitoring the rotation speed of the motor of the mine vehicle ~~(1, 1a, 1b)~~;

and ~~[[that]]~~ the system is arranged to stop the mine vehicle ~~(1, 1a, 1b)~~ when the ratio of the rotation speed of the motor ~~[[30]]~~ to the speed of the mine vehicle exceeds a limit value defined according to the gear used.

Claim 12 (Currently amended): A system according to claim 10, ~~characterized in that~~  
wherein

the system comprises members ~~[[16]]~~ for monitoring the speed of the traction wheels  
~~[[10]]~~ of the vehicle and for determining the speed of the driving power transmission ~~[[20]]~~.